USDA NRCS Natural Resources Conservation Service

Wetland Restoration

Conservation Practice Job Sheet - 657

This restored herbaceous wetland used to be a pasture. Natural regeneration occurred after installation of ditch plugs and low level dikes.

Definition

A drained or degraded wetland area where soils, hydrology, and native hydrophytic vegetation are restored to the pre-degradation/ drained condition to the extent practicable.

Purpose

To recreate natural hydrologic conditions, restore hydric soil conditions, hydrophytic plant communities and wetland functions associated with the site prior to past modifications to the extent practicable. After restoration, the area will provide environmental improvements associated with the restored wetland functions. These improvements may include water quality, wildlife habitat, biological biodiversity, ground water discharge and recharge, aesthetics, and recreation.

Where used

Wetland restoration may be located in manipulated, drained, and/or degraded wetlands or areas of hydric soils. Examples of these type areas are "PC" cropland, "FWP" pasture, and other agricultural lands and woodland where the hydrology has been altered by drainage or the native vegetation removed and replaced with non-native species.

Conservation management system

Wetland restoration is normally established as part of a conservation management system addressing all resource needs and the landowner objectives. It is very important to plan a buffer, (i.e., filter strip or riparian forest buffer) to protect the wetland from up slope sediment and runoff. By establishing a buffer around the wetland, the functions of the wetlands will be enhanced.

Design

The design of a wetland restoration plan is site-specific and meets the landowner's objective. The design will meet targeted wetland functions. Generally, a design with low maintenance components is preferable over a restoration with pumps and other high maintenance components. Ditch plugs, low level flat slope dikes, fencing, water control structures, vegetative plantings and micro topography grading are common practices that may be included in the design.

Operation and maintenance

All structural components (dikes, water control structures etc,) of the wetland restoration plan are to be maintained in a functioning working condition as designed. Inspect annually and after large storm events for damage.

- Livestock are to be excluded from the restored wetland. Haying and grazing are not permitted unless it is required for the management of an endangered species.
- Control undesirable weed and invasive non-native species.
- Maintain and manipulate water levels (if applicable) to manage for the desired target species or wetland function.

Specifications

Site specific requirements are listed on the specification sheet. Additional provisions are listed on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See practice standard *Wetland Restoration* code 657.

Wetland Restoration Specification Sheet

Restored prior converted cropland. Trees line up along old drainage ditch.

Landowner_____

Farm #_____**Field #** _____

Pre-restoration functional assessment completed on _____by _____

Purpose: (check all that apply)

☐ Wildlife Habitat ☐ Water Quality

☐ Recreation ☐ Aesthetics

Other_____

Wetland Restoration Components

Dikes Low level (<2.0 feet water depth) _____Feet (see design below)
Standard 356 (>2.0 feet water depth) _____Feet

Ditch Plugs (50 feet long min) _____Number

Tile line breakage (50 'every 300'of tile) _____Number

Water Control Structures ____Number _____Type _____Size

Vegetative Plantings

Trees _____Acres Species _____ _____ _____ _____

Shrubs _____ Acres Species _____ _____ _____ _____

Grass _____ Acres Species _____ _____ _____ _____

Herbaceous wetland plants

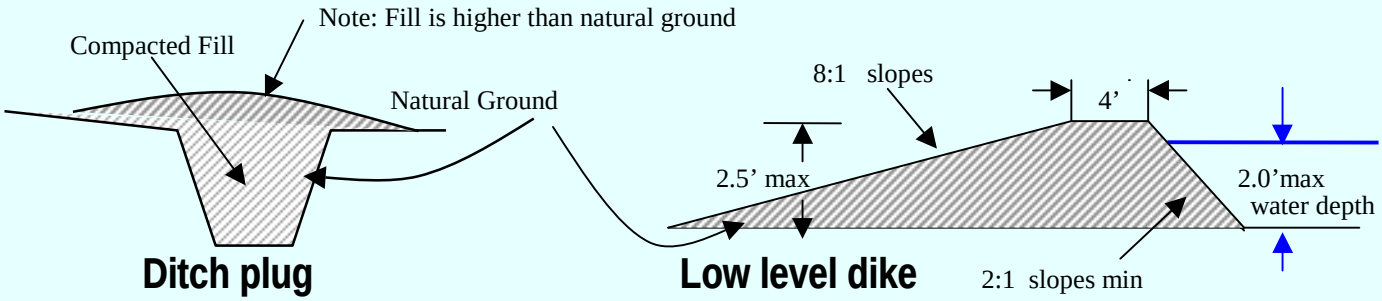
_____ Acres Species _____ _____ _____ _____

Topsoil with seed bank _____Acres

Natural regeneration _____Acres

Fencing _____Type _____Feet

Other_____



Typical Cross–Sections

Wetland Restoration - Job Sketch

A plan view or profile view of the wetland restoration site may be shown below. Relevant information such as existing drainage patterns, hydric soil boundaries, proposed dikes, tile and ditch plugs, water control structures, buffer areas, and others may be shown. Fencing if required, areas that require grading and location of vegetative plantings should be indicated. Additional information and notes may be included in the space provided.

Additional Specifications and Notes:

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